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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,224	02/07/2002	Klaus Arlt	IN-5546	9302
26922	7590	03/16/2004	EXAMINER	
BASF CORPORATION ANNE GERRY SABOURIN 26701 TELEGRAPH ROAD SOUTHFIELD, MI 48034-2442			BISSETT, MELANIE D	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,224

Applicant(s)

ARLT ET AL.

Examiner

Melanie D. Bissett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 19-22 and 25-36 is/are rejected.
- 7) ☒ Claim(s) 23 and 24 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/02, 4/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The US application cited (08/564,304) has been stricken from the IDS form, since it is not a published document. However, the examiner has added US 6,372,875, the patented document, to the IDS form. The citation of English Language Abstract DE 3324211 A1 has also been stricken from the IDS form, since it appears to be a duplication of abstract DE 3324211, cited on the preceding page.
2. Regarding US 4,449,954, note that the information given for this patent is incorrect. The document US 4,449,954 did not appear relevant to the present application, and the examiner could not determine a correct document from the information given. Thus, the document has been stricken from the IDS form.

Claim Objections

3. Claim 32 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 32 is drawn to the thermal or thermal and actinic radiation curing of the clearcoat material. However, claim 19 already recites these limitations (part 4).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 23-26, 32, and 35-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 23 recites "the electrically conductive aqueous primer" and depends from claim 19. However, claim 19 recites an electrically conductive primer in parts d) ii), d) iii), and 1) a). Thus, it is unclear if the applicant intends to limit one or all of the electrically conductive aqueous primers mentioned in claim 19.
7. Claim 25 recites "the bright aqueous primer" and depends from claim 19. However, claim 19 recites an bright aqueous primer in parts 1) b) and 1) c). Thus, it is unclear if the applicant intends to limit one or all of the bright aqueous primers mentioned in claim 19.
8. Claim 32 recites "clearcoat material is curable i) thermally and ii) both thermally and with actinic radiation." Thus, it is unclear whether the applicant intends to claim that the material is thermally curable or that the material is curable by both methods.
9. Claim 35 recites the proviso that the substrate is "uniformly covered over its entire surface by the primer system". However, the primer system comprises different layer structures for different parts of the substrate. The two descriptions contradict with one another. It is unclear whether the applicant intends to claim uniform coverage over the entire surface of the substrate or whether the applicant intends to claim the differing primer structures for different substrates.

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10. Claim 35 recites in its preamble "an integrated multicoat paint system for an integrated metal-plastic substrate that comprises metal parts and plastic parts". Thus, the claim is drawn to a multicoat paint system with a specific *intended use*. However, the claim recites description of the intended substrate and the relationship of primer compositions to the substrate. It is unclear whether the applicant intends to claim the substrate as part of paint system. For the purpose of this Office action, it is the examiner's position to treat the substrate as an intended use, as controlled by the preamble.

Interpretation of the Claims

11. Claim 19 recites in the preamble "an integrated process for painting a substrate" but cites limitations to the *formation* of the substrate (curing processes, pre-coating processes, etc.) in addition to the steps for *painting* the substrate. Since the claim is directed to a process overall, it is the examiner's position that the steps cited in the claim, for making or for actually painting the substrate, should be given patentable weight. Thus, a reference anticipating claim 19 would need to recite all of the process steps, including those steps referring to the making of the substrate.

12. Claim 35 recites in its preamble "an integrated multicoat paint system for an integrated metal-plastic substrate that comprises metal parts and plastic parts". Thus, the claim is drawn to a multicoat paint system with a specific *intended use*. Although the claim presents description of the intended substrate and the relationship of the primer to the substrate, the examiner notes that the substrate is not claimed as part of

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the paint system in the preamble. Thus, mention of the substrate is treated as *intended use* and as such is given little patentable weight.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujii et al. Fujii et al. (US 4,756,975) can be found on the applicant's Form PTO-1449.

15. Fujii discloses a process for coating automotive bodies comprising both metal and plastic members, the process comprising applying a cationic electrocoating to the metal component of the substrate, applying a barrier coat to the entire substrate, applying an intermediate coating, and applying a top coating (abstract). Note that the metal and plastic parts of the substrate are integrated assembled, preferably after electrocoating the metal components (col. 3 lines 22-38; col. 6 lines 47-63). The electrocoat material is thermally cured (col. 4 lines 57-68). The barrier coat may be organic or aqueous (col. 9 lines 3-5) and serves as a primer coat, where the barrier coat contains electroconductive substances (col. 10 lines 4-19; col. 11 line 55-col. 12 line 11). The barrier coat may be cured at temperatures under 100 °C (col. 12 lines 56-60). An aqueous intermediate coating may be applied (col. 13 lines 57-59), where color pigments may be added to form a color coat material (col. 13 lines 65-68). Top coatings

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include at least two components, may be aqueous, and may include both color and clear coatings (col. 14 lines 37-39; col. 16 lines 3-15). A wet-on-wet method may be used to apply a clear coat to a colored coat (col. 16 lines 25-28), where the coatings may be cured under 100 °C (col. 16 lines 40-43). The clear coat is scratch-resistant (col. 15 lines 27-40). The product formed anticipates the paint systems of claims 35-36.

16. Although the reference does not specifically show partial drying of the basecoat before applying a clear coat, note that claim 34 is written in product-by-process format. It is the examiner's position that the cured and coated substrate formed by the process of Fujii's invention would be indistinguishable from one formed by the process of claim 19, regardless of partial drying in an intermediate stage. Thus, it is the examiner's position that the reference anticipates the product of claim 34.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 19-22, 25-27, 30, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii et al.

19. Fujii applies as above, where the reference teaches that the top coating films may be dried by heat or by air but does not specifically teach the step of partially drying a color coat before applying a clear coat composition (col. 16 lines 29-35). Note that

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any time elapsed would cause the first color coating to dry, since the reference teaches room temperature drying of the components. It is the examiner's position that it would have been prima facie obvious to allow the color coating to partially dry before applying a top coating to prevent mixing of the two liquid coatings at the interface. This could have been accomplished by altering the amount of time between coatings.

20. Regarding the "bright aqueous primer", note that the applicant does not quantify or define the term. Fujii teaches an intermediate coating paint having image gloss, where color pigments are added (col. 13 lines 6-20, 57-68). The coatings are cured at temperatures as low as 60 °C (col. 14 lines 1-14). It is the examiner's position that the coating would inherently possess an degree of brightness. By the broadest interpretation of the claim, Fujii's intermediate coating anticipates the claimed bright aqueous primer.

21. Regarding the epoxy-amine adduct of the electrocoat material, Fujii teaches such adducts (col. 4 lines 1-18).

22. Regarding claim 25, note that Fujii teaches options d) i) and 1) a) of claim 19. When the limitation of claim 25 is read into claim 19, the process is not limited to those options d) ii-iii) or 1) b-c). Thus, because Fujii teaches options d) i) and 1) a), claims 25-26 are also encompassed. Regardless, the intermediate coating comprises hydroxyl-containing polyester binders, where polyisocyanates and amino compounds may be used as crosslinking agents (col. 13 lines 18-20, 38-56).

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23. Regarding claim 27, Fujii teaches a top coating paint comprising hydroxyl-containing binders and crosslinking agents (col. 14 lines 37-61). Metallic or color pigments are added to the color layer (col. 16 lines 8-28).

24. Regarding claim 33, Fujii teaches a color coat and clear coat composition, where the clear coats have improved scratch resistance (col. 15 lines 24-52). However, the reference does not teach the use of two clear coat compositions. It is the examiner's position that it would have been prima facie obvious to use more than one clear coat composition to amplify the benefits of the single layer. In this case, it would have been obvious to add an extra clear coat to further improve scratch resistance of the coating.

25. Claims 28-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii et al. in view of Faler et al.

26. Fujii applies as above, teaching that any coating suitable for primers, intermediate, or top coatings may be used as long as surface appearance, weather resistance, and other properties are met (col. 14 lines 17-36). Faler teaches aqueous coating compositions suitable for color basecoats and clear coats comprising a crosslinkable film-forming resin and an amphiphilic adjuvant (abstract). Hydroxyl-functional acrylic polymers, hydroxyl-functional polyurethanes, and hydroxyl-functional polyesters are all suitable for use as crosslinkable resins (col. 2 lines 59-62; col. 3 lines 28-39). Colored basecoats preferably comprise a blend of acrylic and polyester or polyurethane resins (col. 4 lines 29-34), while clearcoats preferably comprise acrylic polyols (col. 4 lines 52-56). Crosslinking agents to be added to the coating

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compositions include aminoplasts and polyisocyanates (col. 6 lines 1-12). Note these compositions are similar to those noted in the primary reference. Faler also teaches a method of applying the colored basecoat, drying the coating, applying a clearcoat, and curing the coatings (col. 10 line 42-col. 11 line 23). Colored coatings of the invention have improved wetting, pinhole resistance, smoothness, humidity resistance, and surface tension, while clearcoats have improved crater resistance, workability, water resistance, and weathering properties (col. 23 lines 54-67). Thus, it is the examiner's position that it would have been prima facie obvious to use the coatings of Faler's invention as colored and clear topcoats in Fujii's methods to improve the noted properties.

Allowable Subject Matter

27. Claims 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

28. The following is a statement of reasons for the indication of allowable subject matter:

29. The closest prior art, Fujii et al., teaches a method of coating substrates having both metallic and plastic parts. However, the reference does not specify the primer composition of claims 23-24. Instead, the reference uses a modified polyolefin resin primer composition, where it would not be obvious to alter such a composition by

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substituting the applicant's primer. Thus, the use of the claimed primer composition provides a novel and unobvious step over the closest prior art methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdb


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